

## Project Summary

### I. INTRODUCTION

This source has applied for a Clean Air Act Permit Program (CAAPP) operating permit for its existing operation. The CAAPP is the program established in Illinois for the operating permits for significant stationary sources required by the federal Clean Air Act, as amended in 1990. The conditions in a CAAPP permit are enforceable by both the Illinois Environmental Protection Agency (Illinois EPA) and the USEPA.

The Onyx-Zion Landfill, Inc., an affiliate of Superior Services Inc. and a subsidiary of Vivendi Environmental, France, is located at 701 Green Bay Road near Zion, Illinois. The landfill has been operating since 1975 and it presently consists of three sites that are permitted separately under solid waste permits issued by Illinois EPA BOL as per the requirements of 35 IAC Subtitle G: Waste Disposal. As described in the CAAPP permit application, the source comprises two MSW landfill sites (Closed Site 1 – Phase B/Site 2 & the active Site 2 Expansion) and a hazardous waste co-disposal site (Site 1-Phase A).

A MSW landfill is defined as an entire disposal facility in a contiguous geographical space where household waste is placed in or on land. An MSW landfill may also receive other types of RCRA Subtitle D wastes (40 CFR 257.2) such as commercial solid waste, nonhazardous sludge, conditionally exempt small quantity generator waste, and industrial solid waste.

Currently, MSW is delivered at the source by waste hauling and collection trucks. These trucks deliver the waste to the active area of the landfill where it is compacted and deposited within the landfill by on site heavy equipment. Prior to the end of the business day, the equipment is then used cover the waste with a layer of daily cover as per the requirements of 35 IAC Subtitle G: Waste Disposal.

Landfill gas emissions from the source are generated from the decomposition of materials deposited in the landfill. Landfill gas is composed primarily of methane and carbon dioxide. A small percentage of other constituents present in the gas include hydrogen sulfide and nonmethane organic compound(s) (NMOC).

At the time of issuance of this permit, a landfill gas collection and control system has been installed at the site. Further, a landfill gas to energy plant owned and operated by Bio Energy (Illinois), L.L.C. (097200ABC) has been constructed at the source.

Other emissions at the landfill are generated through the disposal of asbestos-containing waste material and fugitive dust from roads and excavation activities. In additions, as applicable, VOM emissions are generated from the gasoline, leachate and landfill condensate storage tanks.

## II. EMISSION UNITS

Significant emission units at this source are as follows:

Emission Unit	Description	Significant Dates	Emission Control Equipment
01	<u>Active Area</u> Site 2 Expansion  <u>Inactive Areas</u> Site 1 – Phase B Site 2  Hazardous Waste Co-Disposal Site (Site 1 - Phase A)	<u>Commenced Construction</u>  1975  <u>Last Modification:</u> February, 1998	Gas to Energy Facility <sup>1</sup> with Backup Utility (Open) Flare <sup>2</sup>
02	Gasoline Storage Tank	----	None
03	Leachate and Condensate Storage Tanks	----	None
Fugitive PM Emissions	Paved/Unpaved Traffic Areas, Parking Lots, and Roadways	----	None

<sup>1</sup> Gas to energy plant owned and operated by Bio Energy (Illinois), L.L.C. (097200ABC).

<sup>2</sup> An enclosed flare owned and operated by Onyx-Zion Landfill, Inc.

## III. EMISSIONS

This source is required to have a CAAPP permit since it is a major source of emissions.

For purposes of fees, the source is allowed the following emissions:

Pollutant	Tons/Year
Volatile Organic Material (VOM)	6.65
Sulfur Dioxide (SO <sub>2</sub> )	6.91
Particulate Matter (PM)	17.89
Nitrogen Oxides (NO <sub>x</sub> )	48.34
HAP, not included in VOM or PM	0.20
Total	79.99

This permit is a combined Title I/CAAPP permit that may contain terms and conditions which address the applicability, and compliance if determined applicable, of Title I of the Clean Air Act and regulations promulgated thereunder, including 40 CFR 52.21 - federal Prevention of Significant Deterioration (PSD) and 35 IAC Part 203 - Major Stationary Sources Construction and Modification. Any such terms and conditions are identified within the permit by T1, T1R, or T1N. The source has requested that the Illinois EPA establish or revise such conditions in a Title I permit, consistent with the information provided in the CAAPP application. Any conditions established in a construction permit pursuant to Title I and not revised or deleted in this permit, remain in effect pursuant to Title I provisions until such time that the Illinois EPA revises or deletes them.

#### IV. APPLICABLE EMISSION STANDARDS

All emission sources in Illinois must comply with the Illinois Pollution Control Board's emission standards. The Board's emission standards represent the basic requirements for sources in Illinois.

All emission sources in Illinois must comply with the federal New Source Performance Standards (NSPS). The Illinois EPA is administering NSPS in Illinois on behalf of the United States EPA under a delegation agreement.

All emission sources in Illinois must comply with the federal National Emission Standards for Hazardous Air Pollutants (NESHAP). The Illinois EPA is administering NESHAP in Illinois on behalf of the United States EPA under a delegation agreement.

#### V. PROPOSED PERMIT

##### CAAPP

A CAAPP permit contains all conditions that apply to a source and a listing of the applicable state and federal air pollution control regulations that are the origin of the conditions. The permit also contains emission limits and appropriate compliance procedures. The appropriate compliance procedures may include inspections, work practices, monitoring, record keeping, and reporting to show compliance with these requirements. The Permittee must carry out these procedures on an on-going basis.

##### Title I

A combined Title I/CAAPP permit contains terms and conditions established by the Illinois EPA pursuant to authority found in Title I provisions, e.g., 40 CFR 52.21 - federal Prevention of Significant Deterioration (PSD) and 35 IAC Part 203 - Major Stationary Sources Construction and Modification. Notwithstanding the expiration date on the first

page of the permit, the Title I conditions remain in effect pursuant to Title I provisions until the Illinois EPA deletes or revises them in accordance with Title I procedures.

Because this source is located in the Chicago ozone non-attainment area and emits volatile organic material (VOM), the permit includes conditions to implement the Emissions Reduction Market System (ERMS). The ERMS is a market-based program designed to reduce VOM emissions from stationary sources to contribute to reasonable further progress toward attainment, as further described in Section 6.0 of the permit. The permit contains the Illinois EPA's determination of the source's baseline emissions and allotment of trading units under the ERMS, and identifies units not subject to further reductions. The permit also provides that the source must begin to operate under the ERMS following the initial issuance of allotment trading units to the source. This will occur for the 2000 seasonal allotment period (rather than the 1999 season as originally intended by the ERMS) due in part to delays in the initial issuance of CAAPP Permits. These delays, which have occurred nationally, are attributable to a variety of causes including the unforeseen complexity of processing these permits and gaps in national guidance. Even though operation under the ERMS will not officially start until the 2000 seasonal allotment period, detailed recordkeeping and reporting of seasonal emissions was required beginning in 1998, which will document emissions reductions achieved by sources in 1999 in preparation for the ERMS.

## VI. REQUEST FOR COMMENTS

It is the Illinois EPA's preliminary determination that this source's permit application meets the standards for issuance of a CAAPP permit. The Illinois EPA is therefore proposing to issue a CAAPP permit, subject to the conditions proposed in the draft permit.

Comments are requested on this proposed action by the Illinois EPA and the proposed conditions on the draft permit. If substantial public interest is shown in this matter, the Illinois EPA will consider holding a public hearing in accordance with 35 Ill. Adm. Code Part 166.

MED:97030064:psj